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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/064,787

08/16/2002

Carlos J. Batista

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29306

7590

05/14/2004

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EXAMINER

KEANEY, ELIZABETH MARIE

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/064,787	BATISTA ET AL.	
	Examiner	Art Unit	
	Elizabeth Keaney	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 9 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of the Amendments and Remarks filed 3 February 2004.

Response to Arguments

Applicant's arguments filed with respect to claims 1 and 2 have been fully considered but they are not persuasive.

Applicant argues that Rosine (US Patent 6,311,001) discloses a conventional alkaline leach process rather than a first acid for use in etching the single cladding glass.

The Examiner respectfully points out that etching process recited in claim 1, including a first acid step to create funnel-like openings and a second acid step to de-core the remaining glass cores within the plate-like substrate, is drawn to process limitations of manufacturing which are incidental to the claimed apparatus.

Determination of patentability is based on the apparatus as claimed and the structure implied by the process limitations, rather than the process of its production.

Consequently, the process limitations included within the claim are not afforded patentable weight (see MPEP 2113). Rosine does indeed teach the apparatus as claimed and implied by the process. Accordingly, the rejection is maintained and is found below.

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Applicant's arguments with respect to claim 3 have been considered but are moot in view of the new ground(s) of rejection.

Specification

The disclosure is objected to because of the following informalities:

- Page 7, paragraph 31, line 2: Applicant discloses sodium hydroxide to be an acid. However, it is known in the art that sodium hydroxide, while having the same corrosive properties of an acid, is a base.

Appropriate correction is required.

Claim Objections

Claims 1,3,5,8 are objected to because of the following informalities:

- Claims 1,3,5 and 8 include the limitation of a second acid being sodium hydroxide.
- Claim 1, lines 11-12: delete "and the cladding glass".
- Claim 1, line 12: "perform"; should be --preform--.
- Claim 3, line 5: "the glass"; should be --the core glass--.

Appropriate correction is required.

Since the Applicant has disclosed sodium hydroxide as being an acid, the Examiner has interpreted sodium hydroxide to be an acid for the purpose of this examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1,3-6 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Rosine.

Re claims 1,4,5: Rosine discloses, in figures 5-7 and throughout the disclosure, a microchannel plate (10) for receiving photoelectrons comprising:

- a plate-like substrate web (38) formed from a plurality of microtubules of a single type of cladding glass (34) and defining a pair of opposite faces;
- the substrate web including a plurality of microchannel passages (46) extending between the opposite faces and having openings in both of the opposite faces; and

- the microchannel opening having a funnel-like opening formed in the substrate web at least one of the opposite faces (column 3, line 43).

The Examiner notes that the limitations drawn to the method of etching the microchannel plate are drawn to process limitations of manufacturing which are incidental to the claimed apparatus. Determination of patentability is based on the apparatus as claimed and the structure implied by the process limitations, rather than the process of its production. Consequently, the process limitations included within the claim are not afforded patentable weight.

Re claim 3: Rosine discloses, in figures 5-7 and throughout the disclosure, a method of manufacturing a microchannel plate (10) including the steps of:

- etching a microchannel plate (10) perform having two opposite faces including a core glass (32) and a single type of cladding glass (34) different from the core glass with a first acid (column 3, line 52; column 4, line 44) selected for a desired period of time to create funnel-like openings (column 3, line 43) at the intersection of the core and the cladding glass at one or both of the opposite faces (column 3, lines 51-60);
- subjecting the microchannel plate preform having been first etched to a second etching process with a second selected acid (column 4, line 52) to remove the remaining core glass forming in the plate-like substrate web (column 3, lines 62-64).

Re claims 6 and 9: Rosine discloses the second acid to be hydrochloric acid (claim 8, line 3; column 5, line 55).

Allowable Subject Matter

Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Re claim 7: The best prior art of record discloses a microchannel plate having a core glass and single cladding glass being etched using a first acid to form the funnel-like openings and a second acid to remove the remaining core glass of the plate. The prior art further teaches the use of sodium hydroxide as the first acid to form the funnel-like openings and hydrofluoric acid and hydrochloric acid as the second acid to remove the remaining core glass. However, the prior art fails to teach or fairly suggest a microchannel plate having a core glass and a single cladding glass being etched using hydrofluoric acid as a first acid to form funnel-like openings and a second acid to remove the remaining core glass forming the plate as claimed in claim 7.

Re claim 8: The best prior art of record discloses a microchannel plate having a core glass and single cladding glass being etched using a first acid to form the funnel-like openings and a second acid to remove the remaining core glass of the plate. The

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prior art further teaches the use of sodium hydroxide as the first acid to form the funnel-like openings and hydrofluoric acid and hydrochloric acid as the second acid to remove the remaining core glass. However, the prior art fails to teach or fairly suggest a microchannel plate having a core glass and a single cladding glass being etched using a first acid to form funnel-like openings and sodium hydroxide as a second corrosive material to remove the remaining core glass forming the plate as claimed in claim 8.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Keaney whose telephone number is (571)272-2489. The examiner can normally be reached on Monday-Thursday 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571)272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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SUPERVISORY PATENT EXAMINER